

WHAT IS CLAIMED IS:

1 1. A method of operating a data storage library having a housing
2 that defines an interior region and an exterior region, at least one robotic mechanism
3 disposed in the interior region, a plurality of storage cells disposed in the interior
4 region for storing data cartridges, and a service port disposed through the housing,
5 the method comprising:

6 permitting access to at least part of the at least one robotic mechanism
7 through the service port from the exterior region to allow maintenance on the at least
8 one robotic mechanism; and

9 blocking access to the plurality of storage cells through the service
10 port from the exterior region to prevent access to the data cartridges stored in the
11 plurality of storage cells.

1 2. The method of claim 1 wherein blocking access to the plurality
2 of storage cells through the service port from the exterior region is providing a
3 geometry of the service port that prohibits personnel from reaching into the interior
4 region through the service port.

1 3. The method of claim 1 further comprising:

2 enabling access through the service port when one robotic mechanism
3 of the at least one robotic mechanism is aligned with the service port to permit access
4 to at least part of the one robotic mechanism through the service port from the
5 exterior region; and

6 disabling access to the interior region from the exterior region through
7 the service port when none of the at least one robotic mechanism is aligned with the
8 service port.

1 4. The method of claim 3 wherein blocking access to the plurality
2 of storage cells through the service port from the exterior region is aligning the one
3 robotic mechanism of the at least one robotic mechanism with the service port while
4 access through the service port is enabled.

1 5. A method of claim 1 further comprising moving the at least
2 one robotic mechanism from the interior region through the service port to the
3 exterior region to allow access to the at least one robotic mechanism in the exterior
4 region.

1 6. The method of claim 5 wherein the at least one robotic
2 mechanism is operative to move along a track that routes through the service port,
3 and wherein the track has an end position, the method further comprising:

4 moving the at least one robotic mechanism the end position after
5 moving the at least one robotic mechanism from the interior region through the
6 service port to the exterior region; and

7 removing the at least one robotic mechanism from the track after
8 moving the at least one robotic mechanism to the exterior region.

1 7. The method of claim 1 wherein the at least one robotic
2 mechanism is operative to move along a track that routes through the service port,
3 and wherein the track has an end position, the method further comprising:

4 installing a new robotic mechanism onto the track at the end position;
5 and

6 moving the new robotic mechanism along the track from the end
7 position through the service port and into the interior region after installing the new
8 robotic mechanism onto the track to add to the at least one robotic mechanism within
9 the data storage library.

1 8. The method of claim 1 wherein the at least one robotic
2 mechanism includes a first robotic mechanism and at least one other robotic
3 mechanism, and wherein permitting access to at least part of the at least one robotic
4 mechanism is permitting access to at least part of the first robotic mechanism, the
5 method further comprising blocking access to the at least one other robotic
6 mechanism from the exterior region through the service port while permitting access
7 to at least part of the first robotic mechanism.

1 9. A data storage library comprising:

2 a housing defining an exterior and an interior region;

3 at least one robotic mechanism disposed in the interior region

4 a plurality storage cells disposed in the interior region for storing data
5 cartridges; and

6 a service port disposed through the housing, the service port being
7 operative to permit access to at least part of the at least one robotic mechanism from
8 the exterior region, and operative to block access to the plurality of storage cells
9 from the exterior region.

1 10. The data storage library of claim 9 further comprising a door
2 disposed across the service port, wherein the door has an open position and a closed
3 position for enabling and disabling respectively access to the at least part of the at
4 least one robotic mechanism through the service port from the exterior region.

1 11. The data storage library of claim 9 further comprising a track
2 traversing the service port, wherein the at least one robotic mechanism is operative
3 to move along the track traversing the service port to permit maintenance of the at
4 least one robotic mechanism in the exterior region.

1 12. The data storage library of claim 11 further comprising an
2 open end on the track in the exterior region, the open end allowing the at least one
3 robotic mechanism to be installed and removed from the track in the exterior region.

1 13. The data storage library of claim 9 wherein the at least one
2 robotic mechanism includes a first robotic mechanism and at least one other robotic
3 mechanism, and wherein the first robotic mechanism blocks access to the at least one
4 other robotic mechanism through the service port from the exterior region while the
5 first robotic mechanism is aligned with the service port.

1 14. A data storage library comprising:

2 a housing defining an exterior and an interior region;

3 at least one robotic mechanism disposed in the interior region;

4 a plurality storage cells disposed in the interior region for storing data
5 cartridges,

6 a service port disposed through the housing, the service port being
7 operative to permit access to at least part of the at least one robotic mechanism from
8 the exterior region; and

9 a door disposed across the service port, wherein the door has a closed
10 position for blocking access to the plurality of storage cells through the service port
11 from the exterior region, and an open position for enabling access to the at least part
12 of the at least one robotic mechanism from the exterior region,

13 wherein one robotic mechanism of the at least one robotic mechanism
14 blocks access to the plurality of storage cells through the service port from the
15 exterior region when the door is in the open position and the one robotic mechanism
16 is aligned with the service port.

1 15. The data storage library of claim 14 further comprising a track
2 traversing the service port, wherein the at least one robotic mechanism is operative
3 to move along the track traversing the service port to permit maintenance of the at
4 least one robotic mechanism in the exterior region.

1 16. The data storage library of claim 15 further comprising an
2 open end on the track in the exterior region, the open end allowing the at least one
3 robotic mechanism to be removed and installed onto the track in the exterior region.

1 17. The data storage library of claim 14 wherein the at least one
2 robotic mechanism includes a first robotic mechanism and at least one other robotic
3 mechanism, and wherein the first robotic mechanism blocks access to the at least one
4 other robotic mechanism through the service port from the exterior region while the
5 first robotic mechanism is aligned with the service port.